



Army Transforming America

Doing Something About the Weather

SOLDIERS training in a heavy downpour know well the old saying: “Everybody complains about the weather, but nobody does anything about it.” What they may not know, however, is that their Army *has* been trying to do something about the weather for nearly two centuries — by working to develop the means to predict environmental conditions. Both soldiers and civilians have benefited from these efforts.

The Army began its formal involvement in meteorology in 1814, when Army Surgeon General James Tilton, believing that shifting weather patterns cause or influence certain illnesses, directed service physicians to make detailed weather observations and maintain climate records. The Signal Corps took up the gathering and distribution of weather data following a Congressional mandate in the 1870s. The corps developed a network of telegraphically connected stations that reported data three times daily to Washington, and provided weather bulletins and maps to 9,000 post offices across the country.

Signal Corps weather research increased after World War I, when the Army acquired high-altitude weather balloons and radar-tracking devices and began recording and transmitting weather data from the upper atmosphere and outer space. In 1937 the corps demonstrated that radar could be an aid to marine and aerial navigation and weather observation. In 1948 Army researchers used radar to track a rainstorm 200 miles away, a technique soon adopted for civilian use.

In the late 1950s the Signal Corps loaded America’s first satellite, *Explorer I*, with sophisticated electronic equipment that enabled it to discover the Van Allen radiation belt encircling the earth. The corps payload on *Vanguard II* furnished data for detecting and tracking hurricanes. In 1960 the corps helped design and oversee the manufacture of instrumentation for *TIROS I* and *II*, which provided maps recording relative temperatures of the earth’s surface and photographs covering 850 square miles.

Today, we derive daily benefits from the Army’s trailblazing efforts as early warning systems find and track major storms that threaten lives and property. Of course, advanced notice is of little comfort to the soldiers who often train when the weather is at its worst, but perhaps they’ll better appreciate the need to carry that poncho, even when there’s not a cloud in sight. — CPT Patrick Swan